

DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY AFFAIRS (PERA)

BOARD AND CODE ADMINISTRATION DIVISION

# **NOTICE OF ACCEPTANCE (NOA)**

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/pera/

Greenheck Fan Corporation P. O. Box 410. Schofield, WI 54476

**SCOPE:** This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA -Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code. This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

## **DESCRIPTION: Model EVH-602D Aluminum Louver with and without VCD-40 Damper**

**APPROVAL DOCUMENT:** Drawing No. **MD-101**, titled "EVH-602D Louver w/VCD-40 Damper", sheets 1 through 12 of 12, dated 06/16/2006, with revision 3 dated 07/14/2011, prepared by Greenheck Fan Corporation, signed and sealed by L. David Rice P.E., bearing the Miami-Dade County Product Control revision stamp with the NOA number and expiration date by the Miami-Dade County Product Control Section.

# MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA renews and revises NOA # 06-0711.11 and consists of this page 1 and evidence page E-1, as well as approval document mentioned above.

The submitted documentation was reviewed by Carlos M. Utrera, P.E.



Jo2/09/2012

NOA No. 11-1103.01 Expiration Date: December 7, 2016 Approval Date: February 16, 2012 Page 1

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### A. DRAWINGS

1. Drawing No. **MD-101**, titled "EVH-602D Louver w/VCD-40 Damper", sheets 1 through 12 of 12, dated 06/16/2006, with revision 3 dated 07/14/2011, prepared by Greenheck Fan Corporation, signed and sealed by L. David Rice, P.E.

#### B. TESTS "Submitted under NOA # 06-0711.11"

- 1. Test report on Large Missile Impact Test per FBC, PA 201, Cyclic Wind Pressure Test per FBC, PA 203, and Uniform Static Air Pressure Test per FBC, PA 202 of a "EVH-602D fixed Aluminum Louver" prepared by Architectural Testing, Inc., Test Report No. 63777.01-602-18, dated 06/05/2006, signed and sealed by Joseph A. Reed, P.E.
- 2. Test report on Wind and Wind Driven Rain Resistance per FBC, TAS 100(A) of a "EVH-602D with VCD-40 Fixed Aluminum Louver with Damper", prepared by Architectural Testing Inc., Test Report No. 62173.01-122-44, dated 03/14/2006 and revised on 05/11/2006, signed and sealed by Joseph A. Reed, P.E.

#### C. CALCULATIONS

1. Stress, deflection and anchorage calculations prepared by Rice Engineering, dated 10/28/2011, signed and sealed by L. David Rice, P.E.

### D. QUALITY ASSURANCE

1. Miami-Dade Department of Permitting, Environment, and Regulatory Affairs (PERA)

#### E. MATERIAL CERTIFICATIONS

1. None.

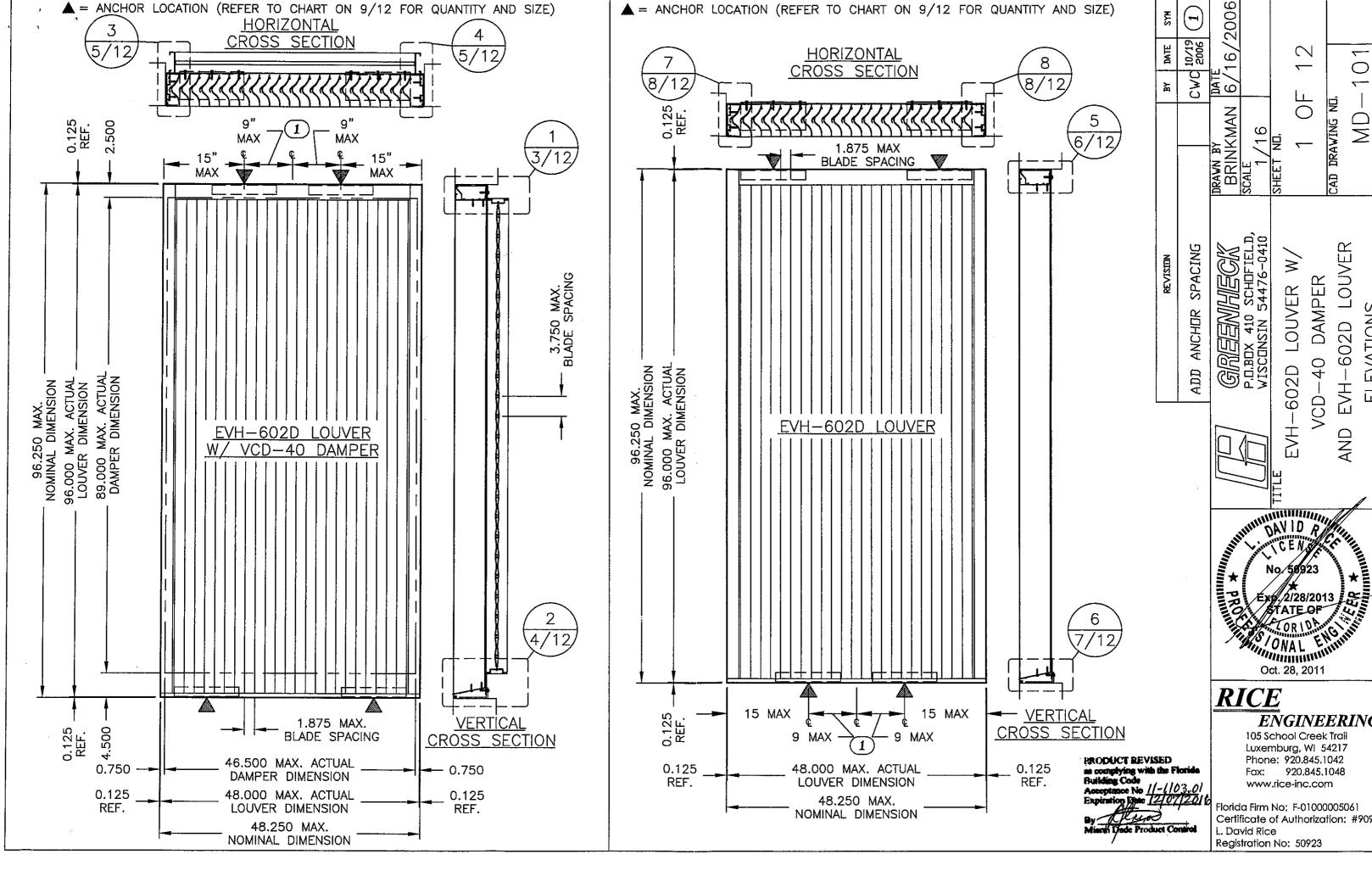
#### F. STATEMENTS

- 1. Statement letter of code conformance to FBC 2007 and 2010, issued by Rice Engineering, dated 10/28/2011 and 12/22/2011, signed and sealed by L. David Rice, P.E.
- 2. No financial interest letter issued by Rice Engineering, dated 10/28/2011, signed and sealed by L. David Rice, PE.

Carlos M. Utrera, P.E.

Product Control Examiner NOA No. 11-1103.01

Expiration Date: December 7, 2016 Approval Date: February 16, 2012



## GENERAL NOTES:

- 1. IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THE LOUVERS.
- 2. THE EVH-602D AND EVH-602D/VCD-40 HAVE BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC) AND TEST PROTOCOLS TAS-201 (IMPACT), TAS-202 (UNIFORM STATIC PRESSURE), AND TAS-203 (CYCLIC FATIGUE). THE EVH-602D/VCD-40 HAS BEEN TESTED IN ACCORDANCE WITH TAS100(A)-95 (WIND DRIVEN RAIN).
- 3. MAXIMUM SINGLE SECTION SIZE IS 48" WIDE X 96" HIGH.
- 4. MAXIMUM ASSEMBLED LOUVER SIZE IS UNLIMITED WIDE X 96" HIGH.
- 5. SECTIONS OR ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDING A SUITABLE STRUCTURAL SUPPORT IS DESIGNED AND INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER.
- 6. ALL WOOD SUBSTRATE SHALL BE  $\underline{S}G = 0.42$  S.P.F OR BETTER. (3)
- 7. ALL METAL STUD SUBSTRATE SHOULD BE MIN. 16 GA. FY = 50 KSI.
- 8. ALL STRUCTURAL STEEL SUBSTRATE SHALL BE MIN. 1/4" THICK FY = 36 KSI.
- 9. ALL CONCRETE SUBSTRATE SHALL BE MIN. 3000 PSI.
- 10. CONCRETE MASONRY SHALL BE ASTM C90, TYPE II, 2500 PSI MIN. 3 GROUT-FILLED.
- 11. LOUVER ASSEMBLY IS TO BE ANCHORED AT HEAD AND SILL ONLY. NO ANCHORAGE IS REQUIRED AT THE JAMBS.
- 12. LOUVER ASSEMBLY IS QUALIFIED FOR A MAXIMUM DESIGN LOAD OF  $\pm/\pm$  150 PSF.
- 13. LOUVER ASSEMBLY IS QUALIFIED FOR LARGE AND SMALL MISSILE IMPACT RESISTANCE.
- 14. LOUVER ASSEMBLY WITHOUT VCD-40 DAMPER SHALL ONLY BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM AND THE ROOM WILL HOUSE WATER RESISTANT/WATER PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.
- 15. LOUVER ASSEMBLY WITH VCD-40 DAMPER MAY BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM OR THE ROOM WILL HOUSE NON-WATER RESISTANT/ WATER PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES. (3)
- 16. INSTALLER TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS AS REQUIRED.
- 17. THE VCD-40 MAY BE OPERATED BY THE MANUAL QUADRANT SHOWN ON 12/12 OR BY AN ELECTRIC OR PNEUMATIC ACTUATOR. THE DAMPER'S ACTUATOR IS NOT PART OF THIS APPROVAL, BUT SHALL BE CERTIFIED BY AN INDEPENDENT TESTING AGENCY.
- 18. FRAME CONSTRUCTION. HEADS AND SILLS ARE SQUARE CUT. JAMBS SQUARE CUT @HEAD AND MITERED @SILL. CORNERS ARE SECURED WITH (2) #10x1-1/4 SMS AND SILICONE SEALED. BLADES ARE SECURED TO HEAD AND SILL WITH (2) #10x1-1/4 SMS AND WELDED @EACH END.

ITEM	#	DESCRIPTION	MATERIAL.	NOTES
1		LOUVER HEAD	6063-T5 ALUMINUM	
2		LOUVER BLADE	6063-T5 ALUMINUM	1.88 MAX, SPACING
3		LOUVER SILL	6063-T5 ALUMINUM	
4		LUUVER JAMB	6063-T5 ALUMINUM	
5		LOUVER BLANK-OFF (AS REQ'D)	6063-T5 ALUMINUM	NOT REQUIRED W/ VCD-40 DAMPER
6A		ANCHOR (8.0 LONG) (3)	6063-T5 ALUMINUM	REFER TO CHART ON 9/12
6B		ANCHUR (10.0 LUNG) (3)	6063-T5 ALUMINUM	REFER TO CHART ON 9/12
6C		ANCHUR (12,00 LUNG)	6063-T5 ALUMINUM	REFER TO CHART ON 9/12
7	-	#10 X 1.25 TPH TYPE AB SMS		7.75' MAX D.C. SPACING (DAMPER ATTACHMENT
8	-	1/8 DIA. BLIND RIVET		
9	-		ALUMINUM	3' FROM END & 14' O. C. MAX. SPACING
		SILICONE SEALANT (3)	SILICONE SEALANT	S
10		INSTALLATION FASTENER	1/4-20 X 1.50 SELF DRILLING (	
11		ANCHOR FASTENER (BY OTHERS)	1/4 DIA. WOOD SCREW	REFER TO CHART ON 9/12
12		ANCHOR FASTENER (BY OTHERS)	1/4-14 AISI 1022	REFER TO CHART ON 9/12
13		ANCHUR FASTENER (BY DIHERS)	SELF-DRILLING SCREW 1/4-20 HILTI DRIL-FLEX	REFER TO CHART ON 9/12
	$\overline{}$			
14A 14B		ANCHOR FASTENER (BY OTHERS)	3/8 HILTI KWIK BOLT 3(3	
		ANCHOR FASTENER (BY OTHERS)	1/4 ITW TAPCON(3)	REFER TO CHART ON 9/12
15	(3)	PERIMETER SEAL (BY OTHERS)		
16		DAMPER HEAD/SILL	6063-T5 ALUMINUM	
17		DAMPER JAMB	6063-T5 ALUMINUM	
18		DAMPER BLADE	6063-TŠ ALUMINUM	3.75 MAX, SPACING
19A		NON-DRIVE DAMPER AXLE ASSY.	ZC STEEL PIN W/ DELRIN	
100		NEW POTUE PANCED AVIE AGOV	BUSHING	
19B		NON-DRIVE DAMPER AXLE ASSY.	ZC STEEL PIN W/ BRONZE BUSHING	
19C	-+	NON-DRIVE DAMPER AXLE ASSY.	ZC STEEL PIN W/ SS BUSHING	
19D		NON-DRIVE DAMPER AXLE ASSY,	SS PIN W/ DELRIN BUSHING	
19E		NUN-DRIVE DAMPER AXLE ASSY,	SS PIN W/ BRONZE BUSHING	
19F		NON-DRIVE DAMPER AXLE ASSY.	SS PIN W/ SS BUSHING	
20A	$\dashv$	DRIVE-SIDE DAMPER AXLE ASSY.	ZC/GALV, STEEL	LINTOLIC SHADE AT DOTLED DI ADE
				UNIQUE SHAPE AT DRIVER BLADE
20B		DRIVE-SIDE DAMPER AXLE ASSY.  DAMPER AXLE BUSHING	\$S	UNIQUE SHAPE AT DRIVER BLADE
21A			DELRIN	· · · · · · · · · · · · · · · · · · ·
21B		DAMPER AXLE BUSHING	BRONZE	
210		DAMPER AXLE BUSHING	22	
ASS		DAMPER BLADE SEAL	EPDM	
22B		DAMPER BLADE SEAL	SILICONE	
23		DAMPER JAMB SEAL	22	
24		DAMPER TOP/BOTTOM CLOSURE	ALUMINUM	HEIGHT VARIES
25A		DAMPER LINKAGE BAR	GALV, STEEL	
25B		DAMPER LINKAGE BAR	22	
26		FORMED "Z" CLIP	ALUMINUM	12,00 MAX, SPACING
27		#10 X .50 TEK	ZP	6.50 MAX. SPACING
28		SHIM AT LOUVER/DAMPER	ALUMINUM	
29	$\dashv$	BLANK-OFF AT LOUVER/DAMPER	ALUMINUM	WIDTH VARIES
30		FOAM TAPE BACKER	.1001111011	USED AT HEAD
31	-+	#8 X .75 TPH TYPE AB SMS	18-8 SS	ספבט הי וובחט
32A	-+	1/4 DIA, E-CLIP	ZP	
32B		1/4 DIA. E-CLIP	SS	
33A		DAMPER BLADE DRIVE LEVER		PRODUCT REVISED
	$\dashv$		GALV. STEEL	as comblying with the Lynkin
33B		DAMPER BLADE DRIVE LEVER	22	Peritting Code
34		REINFORCING STRAP	ALUMINUM	Acceptance No 1/-1/02.0/
35A		1/4-20 X 1,25 HH CS	ZP	Expiration Date 12/07/2016
35B	$\perp$	1/4-20 X 1.5 HH CS	22	A PALLOD
36A		1/4-20 SF NUT	ZP	Mismi Dide Product Control
36B		1/4-20 SF NUT	22	,
37		DAMPER MANUAL QUAD ASSY.		
38	$\neg$	#14 X .75 TEK	ZP	
39		1/4-20 X .562 BALL SWIVEL	ZP	
40	_	5/16 DIA. LINKAGE ROD	ZP	
41		DEADLOAD SHIM (BY OTHERS)		
42	<del> </del> -	OPTIONAL FLANGE	6063-T5 ALUMINUM	
	- 1	- 1111111 ( LANGE	OUGG TO HEOMINON	

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No 60923

**RICE** 

L. David Rice

Registration No: 50923

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**ENGINEERING** 

105 School Creek Trail

Luxemburg, WI 54217 Phone: 920.845.1042

Fax: 920.845.1048

Certificate of Authorization: #9090

www.rice-inc.com

Florida Firm No: F-01000005061

MATFRIA

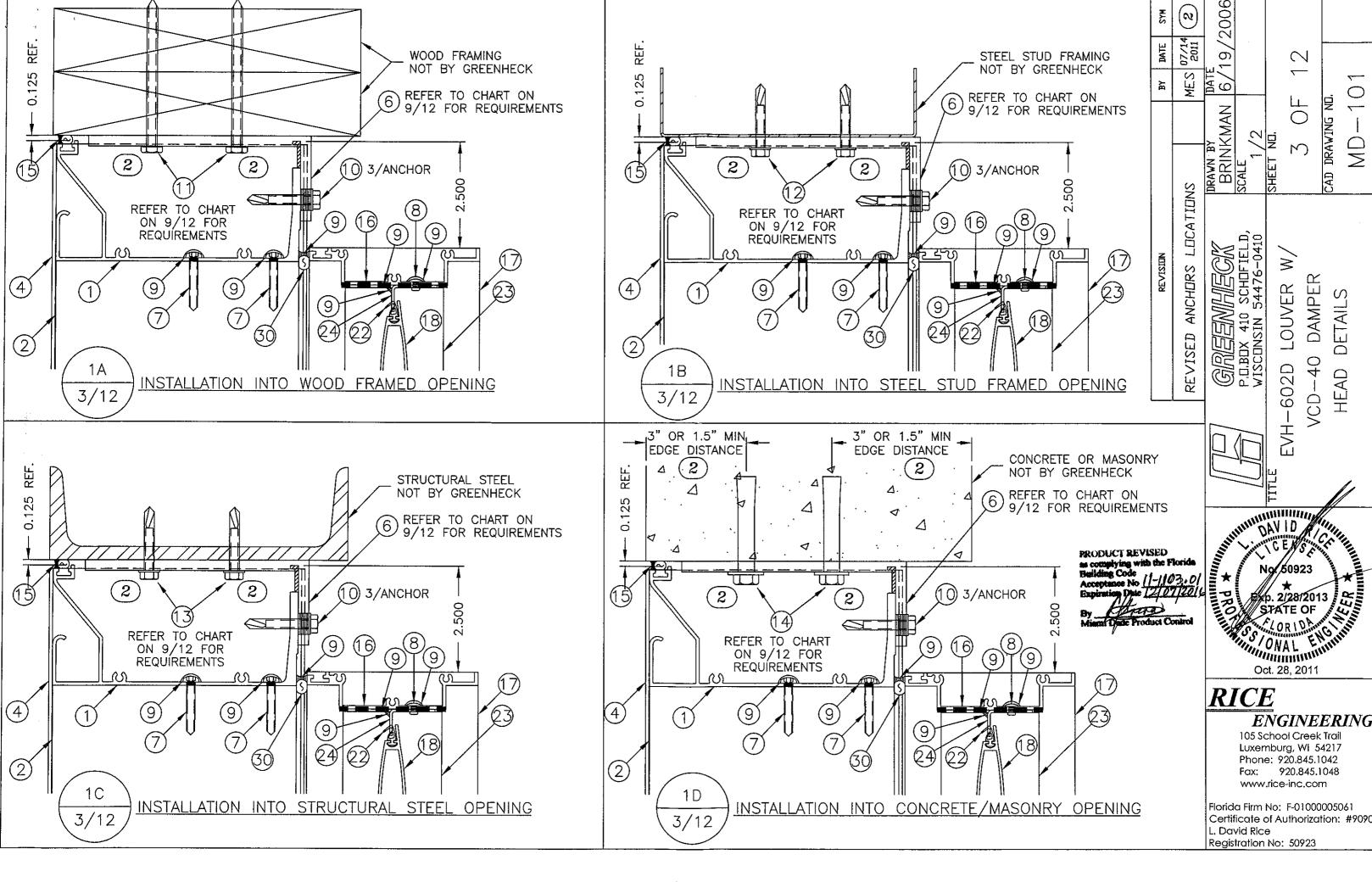
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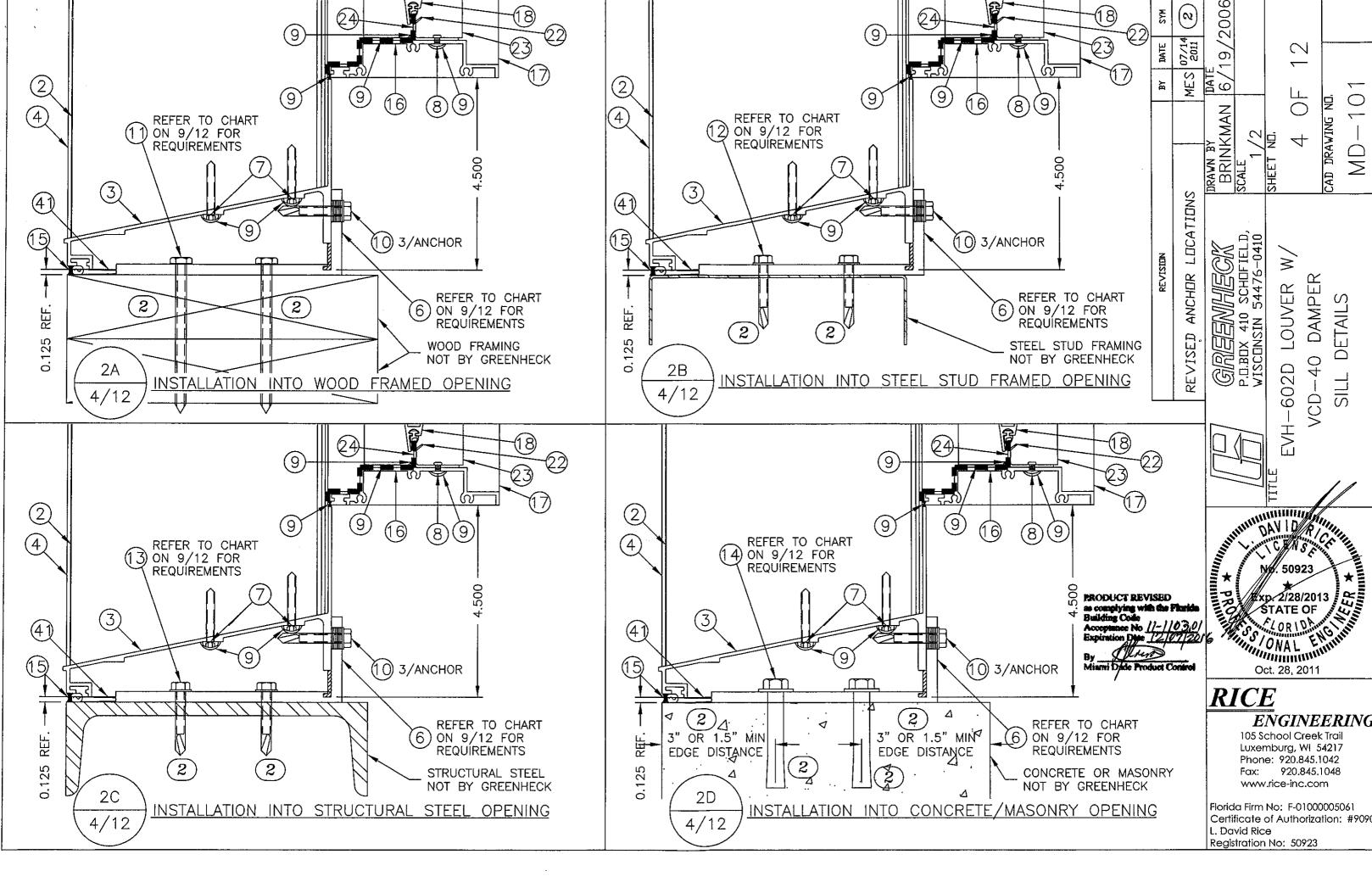
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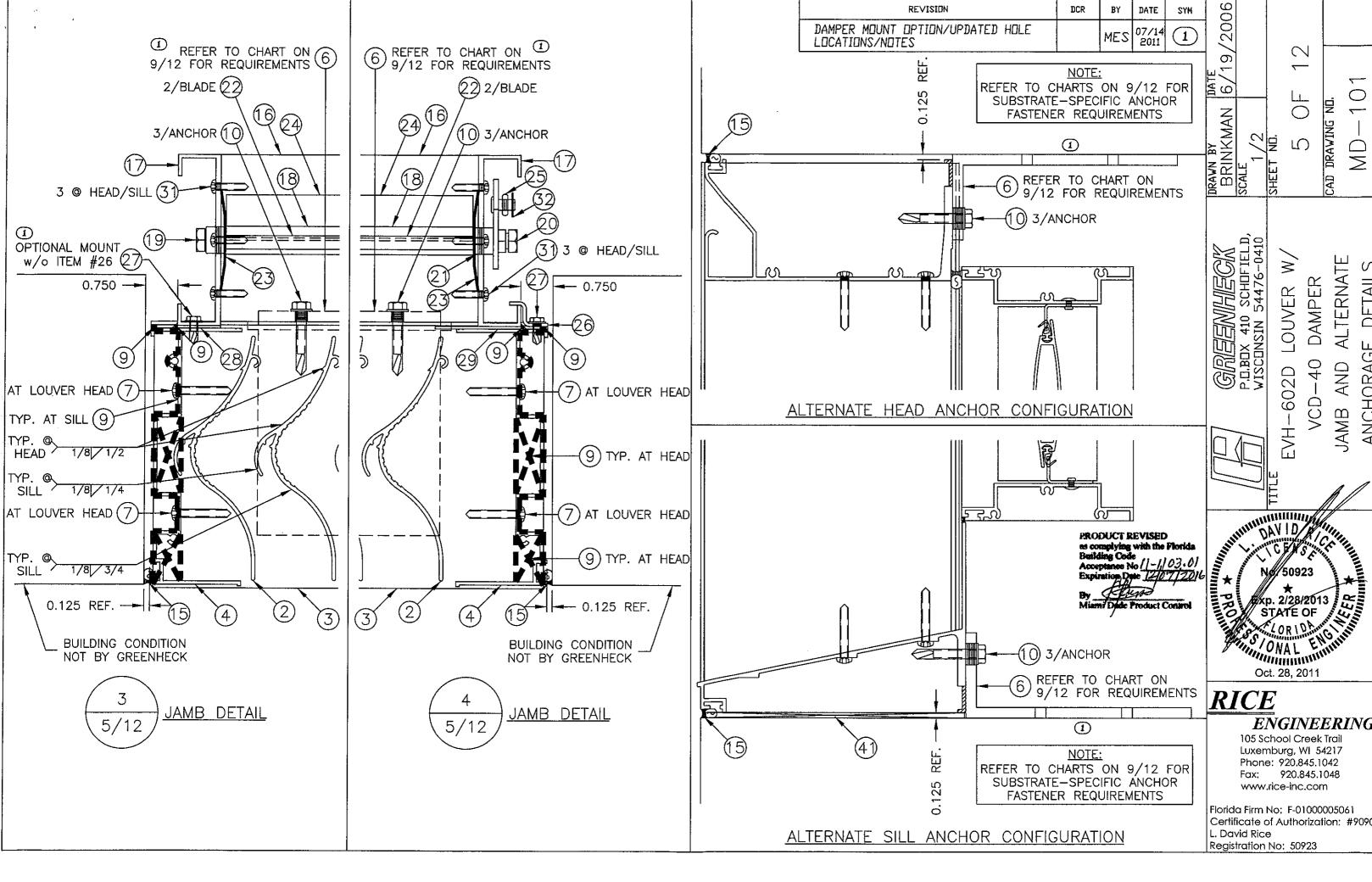
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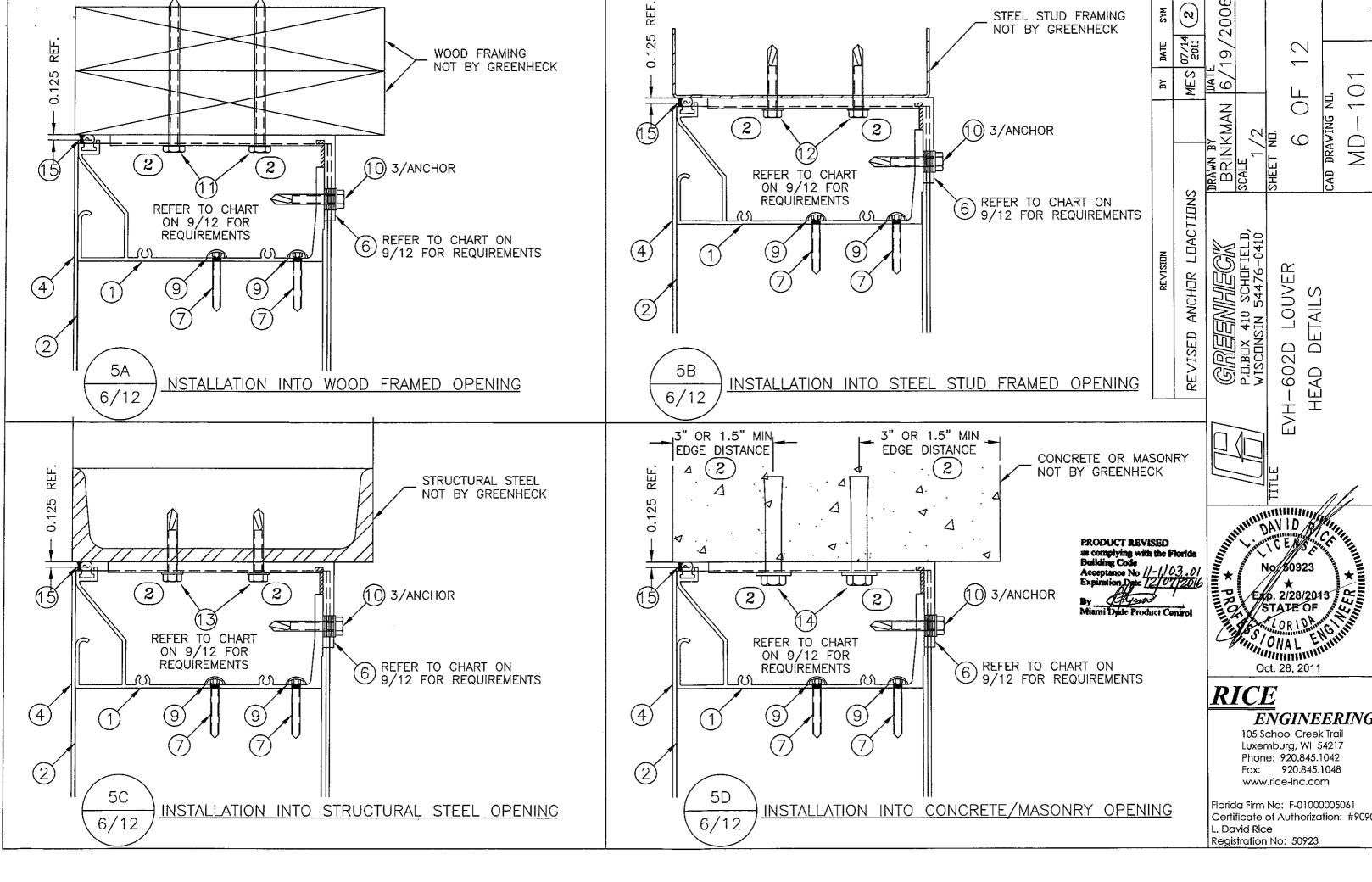
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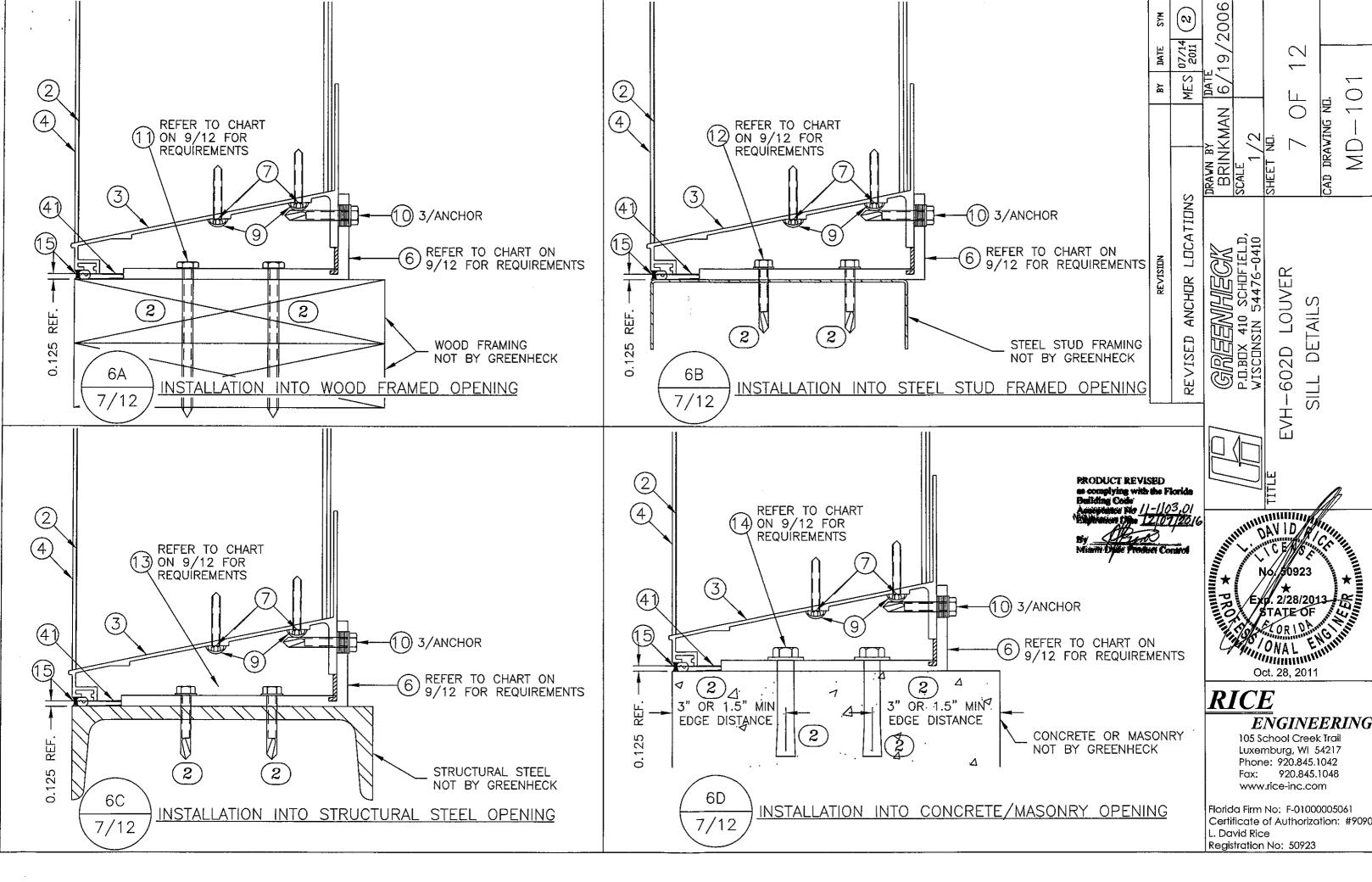
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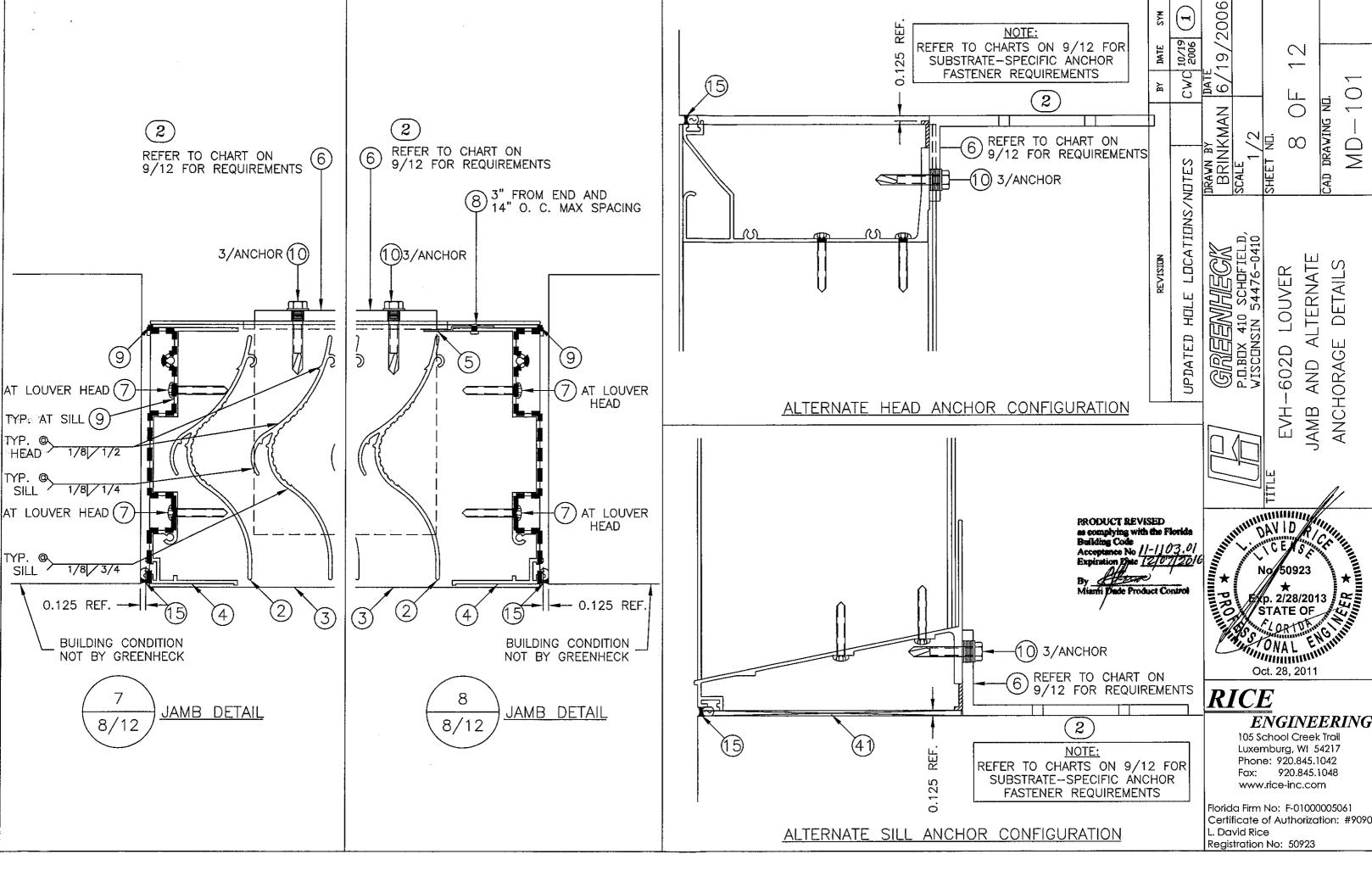












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	A	NCHOR FASTENER REQ	UIREMENTS (ANCHORS BY OTHERS)		
NOM. WIDTH	ANCHOR QUANTITY PER HEAD/SILL	ANCHOR LENGTH	SUBSTRATE (MINIMUMS)	ITEM #	QUANTITY PER ANCHOR
			WDDD, SG=0.42 SPF	11	2
			STEEL STUD, 16GA	12	4
12" THRU 14"	1	8.0*	STRUCTURAL STEEL, 1/4" THICK	13	3
			CONCRETE, 2500 PSI MIN	14A	2
			MASONRY, 2000 PSI, GROUTED	14B	8
	1	10.0*	WDDD, SG=0.42 SPF	11	2
			STEEL STUD, 16GA	12	5
>14" THRU 18"			STRUCTURAL STEEL, 1/4" THICK	13	4
			CONCRETE, 2500 PSI MIN	14A	3
			MASONRY, 2000 PSI, GROUTED	14B	10
**			W00D, SG=0.42 SPF	11	2
			STEEL STUD, 16GA	12	7
>18" THRU 24"	1	12.0*	STRUCTURAL STEEL, 1/4" THICK	13	5
			CONCRETE, 2500 PSI MIN	14A	4
			MASONRY, 2000 PSI, GROUTED	14B	12
	2	8.0*	₩□□D, SG=0.42 SPF	11	2
			STEEL STUD, 16GA	12	4
>24" THRU 28"			STRUCTURAL STEEL, 1/4" THICK	13	3
			CONCRETE, 2500 PSI MIN	14A	2
			MASONRY, 2000 PSI, GROUTED	14B	8
	2	10.0"	WDDD, SG=0.42 SPF	11	2
			STEEL STUD, 16GA	12	5
>28" THRU 36"			STRUCTURAL STEEL, 1/4" THICK	13	4
			CONCRETE, 2500 PSI MIN	14A	3
			MASONRY, 2000 PSI, GROUTED	14B	10
	2	12.0*	WOOD, SG=0.42 SPF	11	2
			STEEL STUD, 16GA	12	7
>36" THRU 48,25"			STRUCTURAL STEEL, 1/4" THICK	13	5
			CONCRETE, 2500 PSI MIN	14A	4
			MASONRY, 2000 PSI, GROUTED	14B	12

2) [	ANCHOR FASTENER REQUIREMENTS (ANCHORS BY OTHERS)						
	ITEM #	DESCRIPTION	MIN, EMBED,	MIN. EDGE DIST.	MIN, SPACING		
	11	1/4" Ø WOOD SCREW, PLATED OR SS	3′	1"	1"		
Ī	12	1/4-14 SCREW, AISI 1022, PLATED OR SS	0.06* (16GA)	3/8"	3/4*		
	13	1/4-20 DRILL-FLEX/KWIK-FLEX, PLATED OR SS	1/4"	3/8"	3/4"		
Γ	14A	3/8" HILTI KWIK BOLT 3 ANCHORS, PLATED OR SS	2"	3″	3,6*		
ſ	14B	1/4" ITW TAPCONS, PLATED OR SS	1 1/2""	1 1/2""	2*		

900 (0) 07/14 2011 DATE  $\sim$ MES ₽ DRAWN BY BRINKMAN SCALE CAD DRAWING TABLES DAMPER LOUVER FASTENER NΕV EVH-602D VCD. Constrol Ex PRODUCT REVISED as complying with the Florida
Building Code
Acceptance No 11-1103.01
Expiration Pate (2107)2015 Oct. 28, 2011 **RICE** 

# ENGINEERING

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MD-

LOUVER

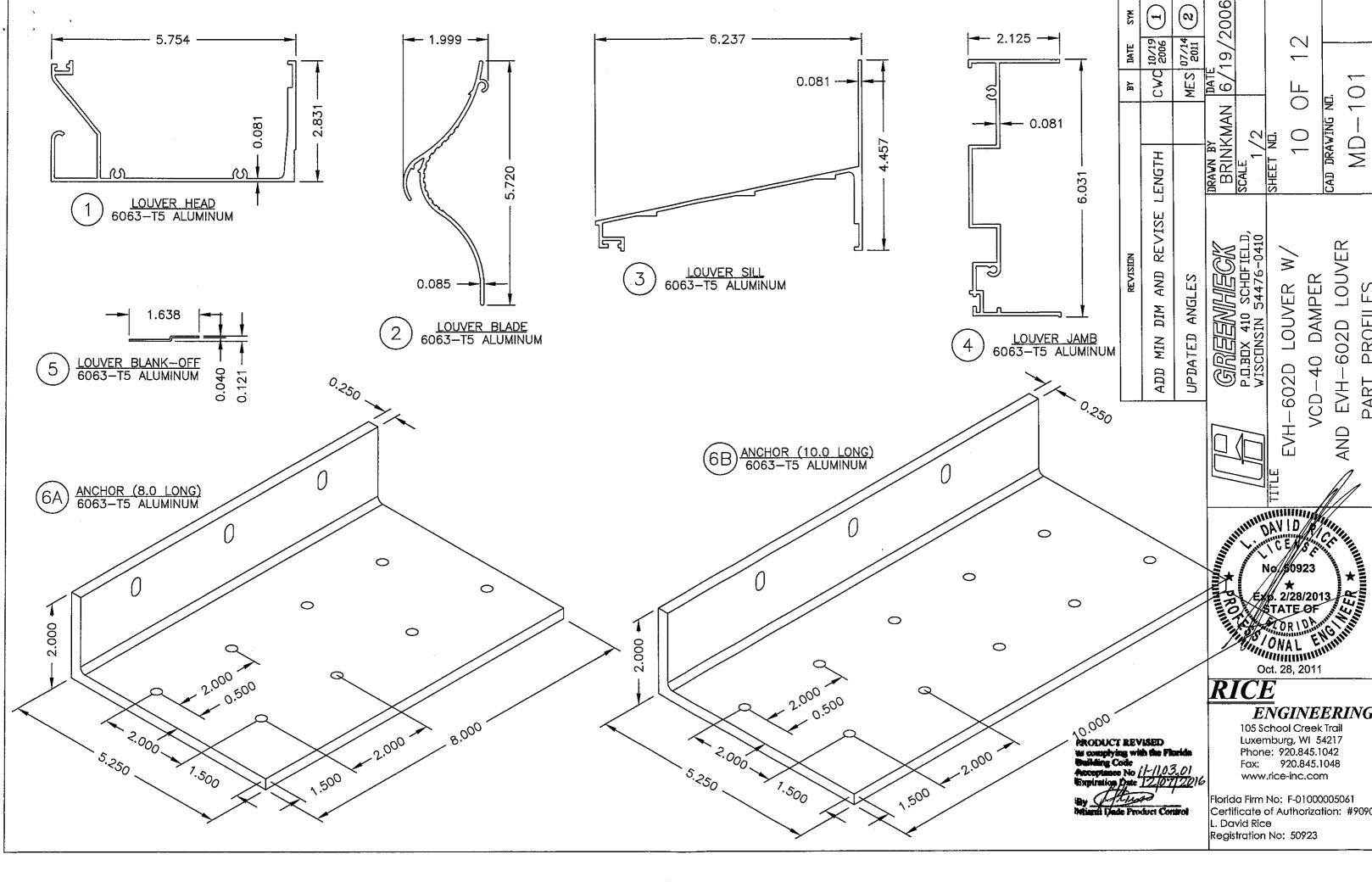
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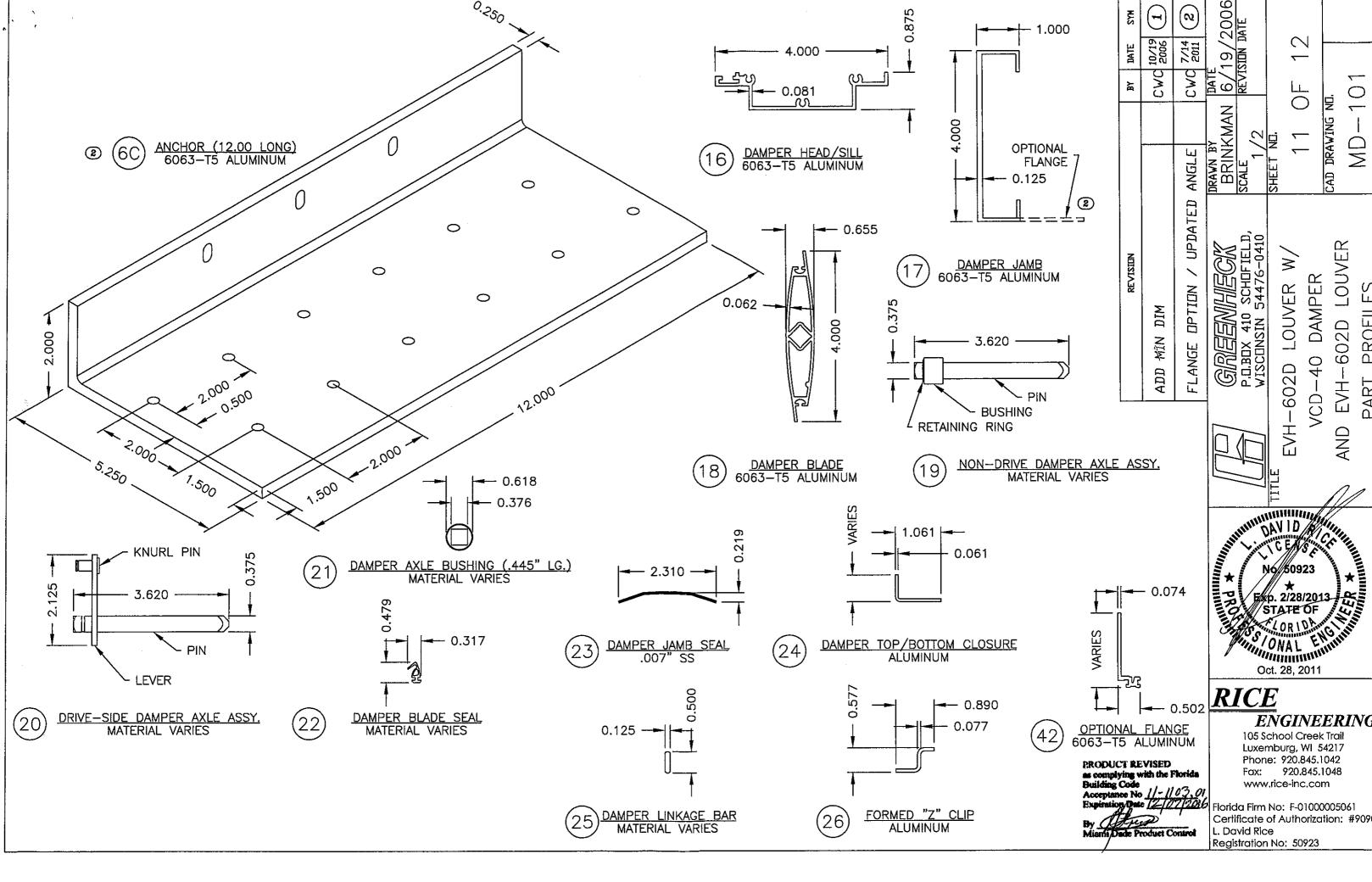
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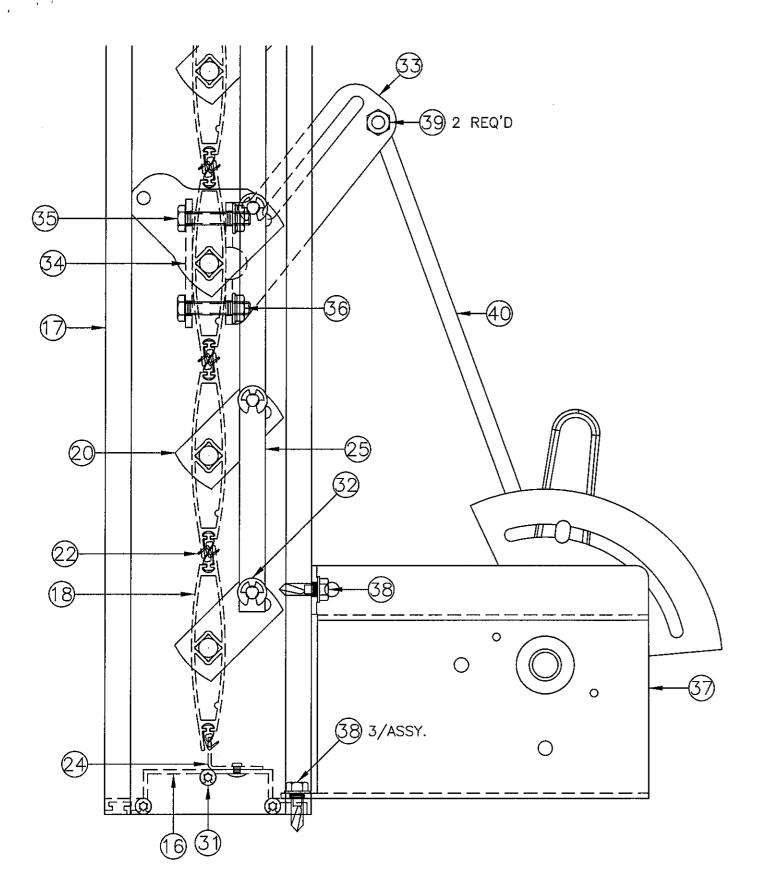
ANCHOR

105 School Creek Trail Luxemburg, WI 54217 Phone: 920.845.1042 Fax: 920.845.1048 www.rice-inc.com

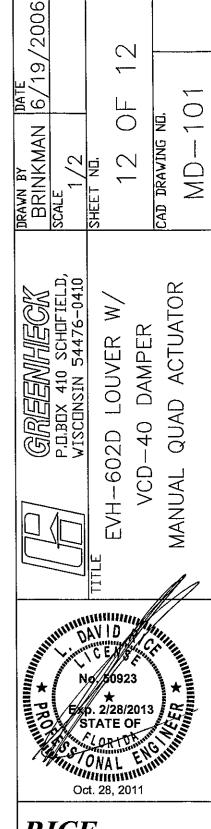
Florida Firm No: F-01000005061 Certificate of Authorization: #9090 L. David Rice Registration No: 50923







MANUAL QUAD DAMPER ACTUATOR



RICE

ENGINEERING 105 School Creek Trail Luxemburg, WI 54217 Phone: 920.845.1042

Fax: 920.845.1048 www.rice-inc.com

PRODUCT REVISED as complying with the Florida Building Code Acceptance No 1/-/103.01 Expiration Date 2 07 2016

Florida Firm No: F-01000005061 Certificate of Authorization: #9090 L. David Rice Registration No: 50923